I. AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application.

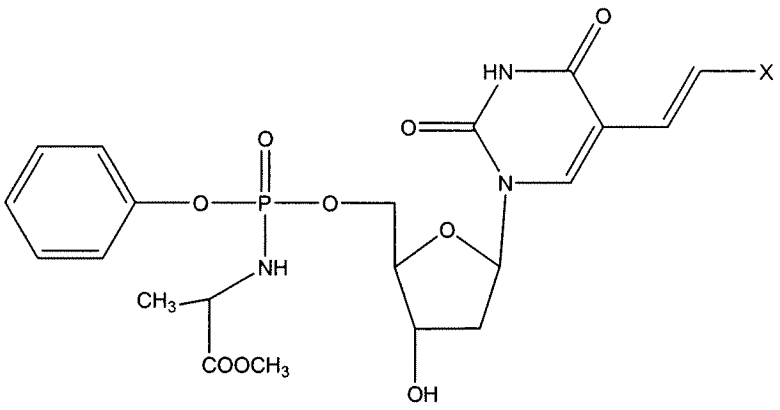
Listing of Claims:

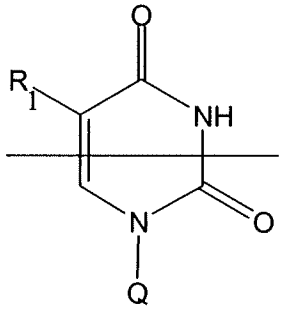
56. (Currently Amended) A method for inhibiting the proliferation of a cancer cell selected from the group consisting of a breast cancer cell, a non-small cell lung cancer cell, a rectal cancer cell, a head and neck cancer cell, a stomach cancer cell, a pancreatic cancer cell, a colon cancer cell, a liver cancer cell, a gastric cancer cell and an ovarian cancer cell, ~~hyperproliferative neoplastic cell that~~ wherein the cancer cell endogenously overexpresses thymidylate synthase, comprising contacting the cell with an effective amount of the compound of claim 62 or the composition of claim 91.

57. (Currently Amended) A method for treating a patient suffering from a cancer selected from the group consisting of breast cancer, non-small cell lung cancer, rectal cancer, head and neck cancer, stomach cancer, pancreatic cancer, colon cancer, liver cancer, gastric cancer and an ovarian cancer cell ~~pathology characterized by hyperproliferative neoplastic cells that~~ wherein the cells of the cancer endogenously overexpress thymidylate synthase ~~in a subject~~ comprising administering to the subject an effective amount of a compound of claim 62 or the composition of claim 92.

Claims 58. to 61. (Canceled).

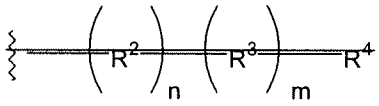
62. (Currently Amended) A compound or its pharmaceutically acceptable salt, ester or ether, wherein the compound is of the formula:





~~wherein:~~

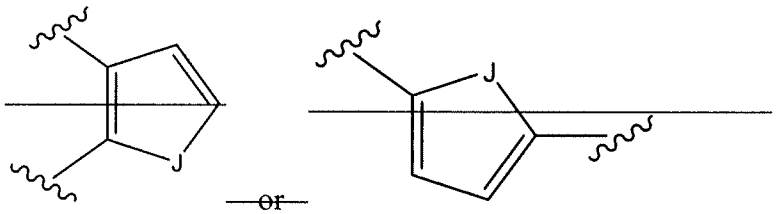
~~R^1 is of the formula:~~



~~wherein R^2 is one of:~~

~~an unsaturated C_2 to C_4 hydrocarbyl group; or~~

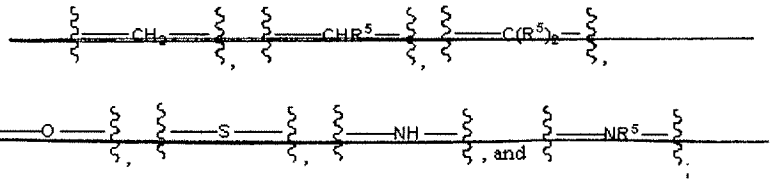
~~a heteroaromatic group having the structure:~~



~~or~~

~~wherein J is -O-, -S-, -Se-, -NH-, or -NR^{ALK}-, wherein R^{ALK} is a linear or branched alkyl having 1 to 10 carbon atoms or a cycloalkyl group having 3 to 10 carbon atoms;~~

~~R^3 is selected from the group consisting of:~~

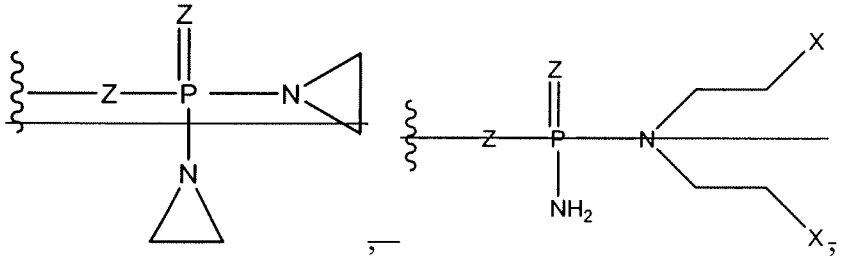


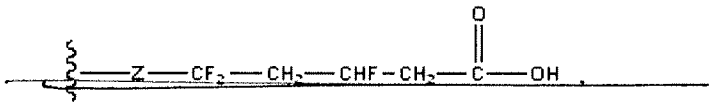
~~wherein R^5 may be the same or different and is independently a linear or branched alkyl group having from 1 to 10 carbon atoms, or a cycloalkyl group having from 3 to 10 carbon atoms;~~

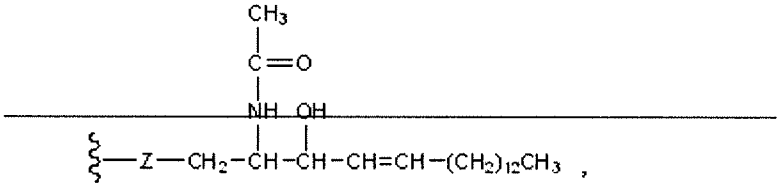
~~wherein n is an integer from 1 to 10;~~

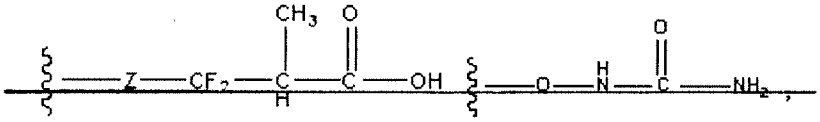
~~wherein m is 0 or 1;~~

~~wherein R^4 is a toxophore selected from the group consisting of:~~

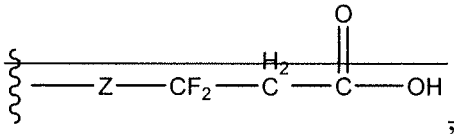








~~and~~

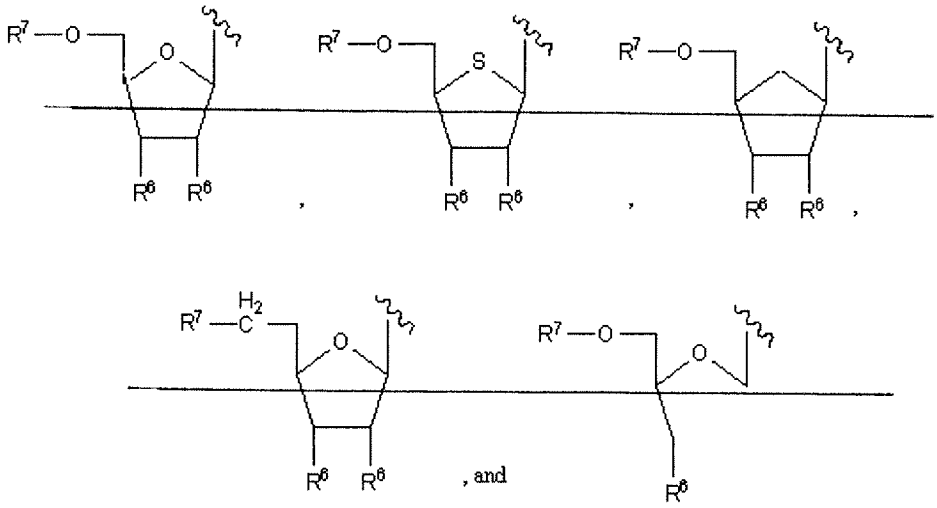


,

wherein X is -Cl, or ~~-Br,~~ -I, ~~or other halogen, with the proviso that when R^7 is -H, and m is , then R^4 is not a halogen or when m is zero and n is zero, then R^4 is not a halogen;~~

~~wherein Y is independently -H or -F;~~

~~wherein Z is independently -O- or -S-; wherein Q is selected from the group~~



~~consisting of:~~

~~wherein R^6 is independently H, OH, $OC(=O)CH_3$, or $O\text{-}R_9$ wherein R_9 is a hydroxyl protecting group other than acetyl; and,~~

~~wherein R^7 is hydrogen, a phosphoryl derivative or a phosphoramidatyl derivative of a naturally-occurring amino acid;~~

and wherein said compound may be in any enantiomeric, ~~diasteriomeric~~, diastereomeric, α-anomeric form, β-anomeric form or stereoisomeric form, wherein the stereoisomeric form consists of a D-form and an L-form.

Claims 63 to 90 (Canceled).

91. (New) A composition comprising the compound of claim 62 and a carrier.

92. (New) A pharmaceutical composition comprising the compound of 62 and a pharmaceutically acceptable carrier.

93. (New) The method of claim 56, wherein the cancer cell is a breast cancer cell or a colon cancer cell.

94. (New) The method of claim 57, wherein the cancer is colon cancer or breast cancer.